

REMARKS

An excess claim fee payment letter is submitted herewith for five (5) additional claims.

Claims 1-34 are all the claims presently pending in the application. Claims 30-34 have been added and claims 24-26 have been withdrawn from examination. Claims 1, 8, 14, 19, and 24 are independent.

These amendments are made only to more particularly point out the invention for the Examiner and not for narrowing the scope of the claims or for any reason related to a statutory requirement for patentability.

Applicant also notes that, notwithstanding any claim amendments herein or later during prosecution, Applicant's intent is to encompass equivalents of all claim elements.

I. THE RESTRICTION REQUIREMENT

The Office Action withdraws claims 24-26 from prosecution as allegedly being directed to an invention which is independent or distinct from the invention which was originally claimed.

Applicant respectfully traverses this restriction requirement.

While the Examiner continues to allege that claims 1-23 and 27-29 and claims 24-26 are distinct from each other, the Examiner completely ignores one of the two requirements that the Examiner is required to meet before a restriction may be issued. In this instance, the Examiner has completely failed to allege that the search for claims 24-26 is a serious burden on the Examiner. Therefore, the Examiner has failed to present a prima facie case for a restriction requirement.

Applicant respectfully submits that the subject matter of all claims 1-29 is sufficiently related that a thorough search for the subject matter of any one group of claims would necessarily encompass a search for the subject matter of the remaining claims. Thus, Applicant respectfully submits that the search and examination of the entire application could be performed without serious burden.

M.P.E.P. § 803 clearly states that “if the search and examination of the entire application can be made without serious burden, the Examiner must examine it on its merits, even though it includes claims to distinct or independent inventions” (emphasis added). Applicant respectfully submits that the Examiner has clearly failed to provide a prima facie showing of a serious burden by failing to provide “by appropriate explanation of separate classification, or separate status in the art, or a different field of search” (M.P.E.P. § 803).

Applicant respectfully submits that the policy requiring examination of an entire application even though the Examiner alleges that it may include distinct inventions, should be applied in the present application in order to avoid unnecessary delay and expense to Applicants and duplicative examination by the Patent Office. Applicant respectfully requests reconsideration and withdrawal of the restriction requirement and to examine all claims in this application.

II. THE CLAIMED INVENTION

An exemplary non-limiting, embodiment of the claimed invention as defined, for example by claim 1, is directed to a mobile wireless communication system which includes an

information server, a portable terminal, a plurality of wireless communication servers, a switch, and a wireless telephony server. The portable terminal communicates with the information server through a wireless communication line and has a buffer memory which stores information transmitted from the information server. A first of the plurality of wireless communication gateway servers is selected based upon the position of the portable terminal, has a buffer emulator which stores data regarding the buffer memory in the portable terminal, and transmits information from the information server to the portable terminal based upon the data in the buffer emulator. The switch sets the connection between the portable terminal and the first wireless communication gateway server and also sets a connection between the portable terminal and a second of the plurality of wireless communication gateway servers when the first wireless communication gateway server is congested. The wireless telephony server of the first exemplary embodiment informs the plurality of wireless communication gateway servers of the position of the portable terminal.

As mentioned in the previous Amendments, the remarks from which are incorporated herein in their entirety by reference, conventional systems have required the installation of a new access point into a portable terminal 20 in order to establish communication with the portable terminal 20 and an information server 26.

The present invention may reduce the amount of time required for a portable terminal to access an information server.

III. THE PRIOR ART REJECTIONS

A. The Chang et al. reference in view of the Rasanen reference

Regarding the rejection of claims 1-6, 8-12, 14-17, 19-22, and 27-29, The Examiner alleges that the Rasanen reference would have been combined with the Chang et al. reference to form the claimed invention.

Applicant submits, however, that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the claimed invention.

There are at least five (5) problems with the Examiner's allegations.

First, the Examiner appears very confused because the Examiner alleges that the Chang et al. reference "does not mention the switching apparatus for setting another connection between the portable terminal and a second wireless communication gateway server when the communication between the portable terminal and the first wireless communication gateway server congests." However, contrary to the Examiner's allegations, the Chang et al. reference indeed does disclose a switching apparatus.

Clearly, the Chang et al. reference discloses a switching apparatus which includes a base station controller 14, a mobile switching center 12 and a signaling system 22. The base station controller 14 controls the base stations, the mobile switching center 12 and the signaling system 22 as disclosed by the Chang et al. reference provides interfaces with the public switched telephone network and the signaling functionality used for PCS mobility management (Fig 1; col. 1, lines 31-46).

Thus, the Examiner is clearly confused as to what a switching apparatus is, if the Examiner does not recognize that the Chang et al. reference includes a switching apparatus.

Therefore, one of ordinary skill in the art would not have been motivated to modify the system disclosed by the Chang et al. reference to include something that the system disclosed by the Chang et al. reference already includes.

Second, as explained above, the present specification explains that conventional systems include a switching apparatus.

Much like the conventional systems described above, and in the specification of the present application at, for example, page 4, lines 2-22, a base station receives a position register signal from the portable terminal and forwards that position register signal to the switching apparatus if the position register signal from the portable terminal does not match the position reported by the base station. The switching apparatus converts the position register signal from the portable terminal into position information and registers that position information in a position information database. In this manner, the switching system can recognize a change in position of the portable terminal.

Thus, these are features that are disclosed not only by the Chang et al. reference, but also are disclosed by the specification of the present application as being included within conventional systems.

Third, contrary to the Examiner's allegation, providing a switching apparatus does not "reduce a time required for a portable terminal to access [an] information server and [to] reduce connection time."

Rather, as explained above and in the present specification, the conventional systems which have included a switching apparatus suffered from the problem that a new connection to a new access point and/or new wireless communication gateway server required initialization of a new buffer memory emulator. This initialization of the new buffer memory emulator requires time which adds to the delay before a new access point and/or new wireless communication gateway server may provide communication between the portable terminal and the information server.

This is despite the presence of a switching apparatus 22.

Therefore, even with a switching apparatus 22, there existed a need in the conventional art to reduce the connection time required for a portable terminal to access the information server.

Thus, contrary to the Examiner's allegation, providing a switching apparatus 22 does not "reduce a time required for a portable terminal to access [an] information server and [to] reduce connection time."

Fourth, the Examiner improperly relies upon hindsight for a teaching that the time may be reduced.

None of the applied references mentions anything at all that is even remotely related to reducing a connection time.

Rather, the only disclosure of reducing "a time required for a portable terminal to access [an] information server and [to] reduce connection time" is found in the specification of the present application.

The Examiner cannot rely upon the Applicant's own disclosure as a basis for rejecting the Applicant's claims.

Fifth, only the claimed invention is capable of reducing the time.

The present application explains that the wireless telephony server informs the plurality of wireless communication gateway servers of the position of the portable terminal. In this manner, the wireless communication gateway servers may take various actions to reduce the amount of time required for the portable terminal to access an information server based upon the position information received from the wireless telephone server. For example, a wireless communication gateway server may request the switching apparatus to change a connection with the portable terminal based upon the position (page 8, lines 22-27).

In summary, contrary to the Examiner's allegations, it would not have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system disclosed by the Chang et al. reference to include a switching apparatus so that the system can reduce a time required for a portable terminal to access information server (sic) and reduce connection time.

Moreover, the combination of the Chang et al. reference and the Rasanen reference as alleged by the Examiner, does not teach or suggest each and every element of the claimed invention.

None of the applied references teaches or suggests the features of the present invention including a wireless telephony server for informing the position of the portable terminal to the plurality of wireless communication gateway servers that include a buffer memory emulator.

The Chang et al. reference discloses an information server (host 36), a portable terminal (mobile station MS), a wireless communication gateway server (gateway server 32), and a switching apparatus (base station BS, base station controller BSC, and mobile switching center MSC).

The Chang et al. reference further discloses a position register (the home location register HLR in the signaling system SS7, which also includes a visited location register VLR).

The Examiner alleges that the Chang et al. reference discloses “a plurality of wireless communication gateway servers” and cites Figure 2, the base station controllers BSC 14 and col. 5, line 61 - col. 6, line 20 in an attempt to support the Examiner’s allegation.

The Examiner further alleges that the Chang et al. reference discloses that these wireless communication gateway servers comprise “a buffer memory emulator (MS-BS table) which stores specification data representing a specification of the buffer memory.”

However, contrary to the Examiner’s allegations, the Chang et al. reference does not teach or suggest a buffer memory emulator. Indeed, the Chang et al. reference does not mention anything at all that is even remotely related to a buffer memory, let alone a buffer memory emulator.

The Examiner appears to allege that the MS-BS table corresponds to the buffer memory emulator.

However, contrary to the Examiner’s allegations, the Chang et al. reference clearly explains that the “MS-BS association table . . . indicates to which BS each MS presently being serviced by the BSC is connected.” (Col. 6, lines 6-8).

Therefore, the MS-BS association table that is disclosed by the Chang et al. reference does not correspond to a buffer memory emulator, let alone a buffer memory emulator that stores specification data representing a specification of the buffer memory in the portable terminal.

Further, the Examiner's allegation that the base station controllers BSCs correspond to a wireless communication gateway server illustrates the Examiner's confusion regarding the applied references and the claimed invention.

The base station controllers form a part of a switching apparatus and do not correspond to a wireless communication gateway server.

The specification of the present application explains that a wireless communication gateway server performs protocol conversion between a communication protocol on a wireless communication line and a standard protocol on a network (page 2, lines 19-23).

The Chang et al. reference discloses a "gateway router 32 [that] provides connectivity to a data network 34, such as the Internet, for accessing a remote data host 36." (Col. 4, lines 15-18). In order to provide this "connectivity" the gateway router must perform protocol conversion between a wireless communication protocol and the network protocol. Therefore, the gateway router 32 of the Chang et al. reference appears to correspond to a wireless communication gateway server, not the base station controller as alleged by the Examiner.

The Examiner also alleges that the home location register HLR disclosed by the Chang et al. reference corresponds to the claimed wireless telephone server that informs the position of the portable terminal to the plurality of wireless communication gateway servers.

While the home location register HLR disclosed by the Chang et al. reference includes position information that is registered by the mobile switching center, as described by the present specification, the Chang et al. reference does not teach or suggest that the home location register informs the position of the portable terminal to the plurality of wireless communication gateway servers (i.e. the gateway router 32).

As explained above, the claims require that the wireless communication gateway servers comprise a buffer memory emulator. Clearly, the base station controllers BSCs which the Examiner alleges correspond to wireless communication gateway servers do not include a buffer memory emulator.

Further, while the Chang et al. reference does not disclose that the gateway router 32 includes a buffer memory emulator, the Chang et al. reference clearly does not disclose any communication at all between the gateway router 32 and the home location register 32.

In summary, the Chang et al. reference clearly does not teach or suggest a wireless telephony server for informing the position of the portable terminal to a wireless communication gateway server that includes a buffer memory emulator.

The Rasanen reference does not remedy the deficiencies of the Change et al. reference.

Indeed, the Rasanen reference does not even teach or suggest a wireless communication gateway server. As explained above, a wireless communication gateway server converts a protocol between the portable terminal and an information server on a network

Rather, the Rasanen reference discloses addressing the problems of implementing handoffs between base station cells when it is necessary to reduce the congestion of any base station cell (col. 3, line 56 - col. 4, line 10).

The Examiner again appears to confuse a base station (BTS) as shown in Fig. 1 of the Rasanen reference with the wireless communication gateway servers used by the present invention.

As explained by the present specification, the base station is used to establish radio communication into the system of the present invention. For example, the base station (i.e. radio antenna) has a known location and the position of the portable terminal may be reported by the base station to the switch for storage in the position information database (page 4, lines 2-13):

The Rasanen reference explains that a base station may become congested. However, this congestion is very different from the type of congestion that may be experienced by a wireless communication gateway server. For example, the congestion experienced at a base station is a result of the radio frequency allocation at the base station.

In stark contrast, as explained above, the wireless communication gateway server operates on a network and converts protocols between the portable device and the information server. The wireless communication gateway server may experience congestion as a result of the bandwidth at an access point not being sufficient to handle the amount of data transfers being requested through the access point.

Clearly, as explained by the present specification, a base station is not a wireless communication gateway server.

Therefore, the Examiner is respectfully requested to withdraw the rejection of claims 1-6, 8-12, 14-17, 19-22, and 27-29.

B. The Chang et al. reference in view of the Rasanen reference and in further view of the Valentine et al. reference.

Regarding the rejection of claims 7, 13, 18, and 23, the Examiner alleges that the Rasanen reference would have been combined with the Chang et al. reference and further alleges that the Valentine et al. reference would have been combined with the Chang et al. reference and the Rasanen reference to form the claimed invention. Applicant submits, however, that even if combined, the combination would not teach or suggest each and every element of the claimed invention.

Even assuming arguendo that one of ordinary skill in the art would have been motivated to combine these references, the combination would not teach or suggest each and every element of the claimed invention.

As explained previously, neither of the Chang et al. reference and the Rasanen reference teaches or suggests the features of the claimed invention including a wireless telephony server for informing the position of the portable terminal to a wireless communication gateway server that includes a buffer memory emulator.

The Valentine et al. reference does not remedy the deficiencies of the Chang et al. reference and the Rasanen reference.

Indeed, the Examiner does not allege that the Valentine et al. reference discloses a wireless telephony server for informing the position of the portable terminal to a wireless communication gateway server that includes a buffer memory emulator.

The Valentine et al. reference does not teach or suggest a wireless telephony server, let alone a a wireless telephony server that informs a plurality of wireless communication gateway servers of the position of the portable terminal.

Rather, in the same manner as described in the background and shown in Fig. 1 of the present specification, Figs. 1 and 2 of the Valentine et al. reference discloses a base station (base station system 25, base station controller 23 and satellite adapted base station system 220), a switching apparatus 22 (mobile switching center 14) and a position information database 23 (home location register 26).

Additionally, contrary to the Examiner's allegation, the Valentine et al. reference does not teach or suggest a satellite network connected to wireless communication gateway servers, a switching apparatus or a wireless telephony server.

Rather, the Valentine et al. reference merely discloses a mobile station 20 and a base station system 220 connected to a satellite network.

Clearly, these novel features are not taught or suggested by the Valentine et al. reference. Indeed, the Valentine et al. reference is completely unrelated to the claimed invention.

Therefore, the Examiner is respectfully requested to withdraw the rejection of claims 7, 13, 18, and 23.

IV. FORMAL MATTERS AND CONCLUSION

In view of the foregoing amendments and remarks, Applicant respectfully submits that claims 1-34, all the claims presently pending in the Application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the Application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully submitted,

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